

## SEQUENCE LISTING

**SEQ ID NO:1**

human CNG2B amino acid sequence

5 MSQDTKVKTTESSPPAPSKARKLLPVLDPSGDYYYWWLNTMVFPVMYNLIILVCRACFPDLQHGVLVAWLVL  
DYTSDLLYLDDMVVRFHTGFLEQGILVVDKGRISSRYVRTWSFFLDLASLMPDVTVVYVRLGPHPTPTLRLNRF  
LRAPRLFEEAFDRTESTRAYPNAFRIAKMLYIFVVIHWNSCLYFALSRYLGFRDAWVYPDPAQPGFERLRR  
QYLYSFYFSTLILTTVGDTPPPAREEEYLFMVGDFLLAVMGFATIMGSMSSVIYNMNTADAAFYDPHALVKK  
YMKLQHVNRKLERRVIDWYQHLQINKMTNEVAILQHLPERLRAEVAVSVHLSTLSRVQIFQNCESLLEEL  
10 VLKLQPQTYSPGEYVCRKGDIGQEMYIIREGQLAVVADDGITQYAVLGAGLYFGEISIINIKGNMSGNRRTA  
NIKSLGYSDFCLSKEDLREVLSEYPQAQTIMEEKGREILLKMNKLDVNAEAAEIALQEATESRLRGLDQQL  
DDLQTKFARLLAELESSALKIAYRIERLEWQTREWMPEDLAEADDEGEPEEGTSKDEEGRASQEGPPGPE

**SEQ ID NO:2**

15 complete human CNG2B nucleotide sequence

AGAGGGGAGGAGGAAAACAGAGACAAGACTCAGGCTTCCCTCTGAGGCATGCACCCCCACCTTCTCCAGGGA  
TCTCATTAGAGGTGTTTAGCTGGGCAGGTGTAAGCCCAGGCCCTGGGAGACAGGGCAGAGTGCTAGAGCTAG  
ACTGTCTCCACCCCTTCAGTAGCGCTAGCTCTGGTTGTGTGTGCTAAGAGCCCCAAAGACAAAGAGTCACAG  
20 CAGAAGCCCAACAGCAGCCTCCTTCAGACAGTCAGGCACTAGTGCCCAACTCCAGAAGTCCCCACAGGCAG  
AGAGGGTGTGGACATCTCACACCCAGCACCAGACCACAGAACCATGAGCCAGGACACCAAAGTGAAGACAA  
CAGAGTCCAGTCCCCCAGCCCCATCCAAGGCCAGGAAGTTGCTGCCTGTCTCTGGACCCATCTGGGGATTACT  
ACTACTGGTGGCTGAACACAATGGTCTTCCAGTCATGTATAACCTCATCATCCTCGTGTGCAGAGCCTGCT  
TCCCCGACTTGCAGCACGGTTATCTGGTGGCCTGGTTGGTGTCTGGACTACACGAGTGACCTGCTATACCTAC  
25 TAGACATGGTGGTGCCTTCCACACAGGATTCTTGGAAACAGGGCATCCTGGTGGTGGACAAGGGTAGGATCT  
CGAGTCGCTACGTTTCGACCTGGAGTTTCTTCTTGGACCTGGCTTCCCTGATGCCCACAGATGTGGTCTACG  
TGCGGCTGGGCCCCGACACACCCACCCTGAGGCTGAACCGCTTCTCCGCGCGCCCCGCTCTTCGAGGCCT  
TCGACCGCACAGAGACCCGCACAGCTTACCCAAATGCCTTTCGCATTGCCAAGCTGATGCTTTACATTTTGT  
TCGTCATCCATTGGAACAGCTGCCTATACTTTGCCCTATCCCGGTACCTGGGCTTCGGGCGTGACGCATGGG  
30 TGTACCCGGACCCCGCGCAGCCTGGCTTTGAGCGCCTGCGGCGCCAGTACCTCTATAGCTTTTACTTCTCCA  
CGCTGATACTGACTACAGTGGGCGATACACCGCCGCCAGCCAGGGAAGAAGAGTACCTCTTCATGGTGGGCG  
ACTTCTGCTGGCCGTCATGGGTTTTCGCCACCATCATGGGTAGCATGAGCTCTGTCTATCTACAACATGAACA  
CTGCAGATGCGGCTTTCTACCCAGATCATGCACTGGTGAAGAAGTACATGAAGCTGCAGCACGTCAACCGCA  
AGCTGGAGCGGCGAGTTATTGACTGGTATCAGCACCTGCAGATCAACAAGAAGATGACCAACGAGGTAGCCA  
35 TCTTACAGCACTTGCTGAGCGGCTGCGGGCAGAAGTGGCTGTGTCTGTGCACCTGTCCACTCTGAGCCGGG  
TGCAGATCTTTCAGAACTGTGAGGCCAGCCTGCTGGAGGAGCTGGTGTCTGAAGCTGCAGCCCCAGACCTACT  
CACCAGGTGAATATGTATGCCGCAAAGGAGACATTGGCCAAGAGATGTACATCATCCGAGAGGGTCAACTGG  
CCGTGGTGGCAGATGATGGTATCACACAGTATGCTGTGCTCGGTGCAGGGCTCTACTTTGGGGAGATCAGCA  
TCATCAACATCAAAGGGAACATGTCTGGGAACCGCCGCACAGCCAACATCAAGAGCCTAGGTTATTTCAGACC

TATTCTGCCTGAGCAAGGAGGACCTGCGGGAGGTGCTGAGCGAGTATCCACAAGCACAGACCATCATGGAGG  
 AGAAAGGACGTGAGATCCTGCTGAAAATGAACAAGTTGGACGTGAATGCTGAGGCAGCTGAGATCGCCCTGC  
 AGGAGGCCACAGAGTCCCGGCTACGAGGCCTAGACCAGCAGCTGGATGATCTACAGACCAAGTTTGCTCGCC  
 TCCTGGCTGAGCTGGAGTCCAGCGCACTTAAGATTGCTTACCGCATTGAACGGCTGGAGTGGCAGACTCGAG  
 5 AGTGGCCAATGCCCCGAGGACCTGGCTGAGGCTGATGACGAGGGTGAGCCTGAGGAGGGAACTTCCAAAGATG  
 AAGAGGGCAGGGCCAGCCAGGAGGGACCCCCAGGTCCAGAGTGACCCCATCCCCATCCCCAGGATTCCCACC  
 TCCTAGTGAATCCAGAGTTGTAGTAAAGCCTAACTGCTGCAACTCTGTTCATCCTGTCTGCGAGATCACAGAC  
 ACAGGAGCGAATTGGTCTGTAGATGCCAGCTAGAGATATAGGAGTTTAACGCACATTTCAGCCCCCACTTAC  
 CAGTACACACACACACACACACACATTTGCTCATAGACCTGTTGGCCCCAAGACTGTGCATTCCAT  
 10 CTAA

### **SEQ ID NO:3**

human CNG2B coding sequence

15 ATGAGCCAGGACACCAAAGTGAAGACAACAGAGTCCAGTCCCCAGCCCCATCCAAGGCCAGGAAGTTGCTG  
 CCTGTCTTGGACCCATCTGGGGATTACTACTACTGGTGGCTGAACACAATGGTCTTCCCAGTCATGTATAAC  
 CTCATCATCCTCGTGTGCAGAGCCTGCTTCCCCGACTTGACAGCAGGTTATCTGGTGGCCTGGTTGGTGCTG  
 GACTACACGAGTGACCTGCTATACCTACTAGACATGGTGGTGGCTTCCACACAGGATTCTTGAACAGGGC  
 ATCCTGGTGGTGGACAAGGGTAGGATCTCGAGTCGCTACGTTTCGCACCTGGAGTTTCTTCTTGGACCTGGCT  
 20 TCCCTGATGCCACAGATGTGGTCTACGTGCGGCTGGGCCCCGACACACCCACCCTGAGGCTGAACCGCTTT  
 CTCCGCGCGCCCCGCTCTTCGAGGCCCTTCGACCGCACAGAGACCCGACAGCTTACCCAAATGCCTTTTCG  
 ATTGCCAAGCTGATGCTTTTACATTTTGTGCTCATCCATTGGAACAGCTGCCTATACTTTGCCCTATCCCGG  
 TACCTGGGCTTCGGGCGTGACGCATGGGTGTACCCGACCCCGCGCAGCCTGGCTTTGAGCGCCTGCGGCGC  
 CAGTACCTCTATAGCTTTTACTTCTCCACGCTGATACTGACTACAGTGGGCGATACACCGCCGCCAGCCAGG  
 25 GAAGAAGAGTACCTCTTCATGGTGGGCGACTTCCTGCTGGCCGTGATGGGTTTCGCCACCATCATGGGTAGC  
 ATGAGCTCTGTCTATCTACAACATGAACACTGCAGATGCGGCTTTCTACCCAGATCATGCACTGGTGAAGAAG  
 TACATGAAGCTGCAGCACGTCAACCGCAAGCTGGAGCGGCGAGTTATTGACTGGTATCAGCACCTGCAGATC  
 AACAAGAAGATGACCAACGAGGTAGCCATCTTACAGCACTTGCTGAGCGGCTGCGGGCAGAAGTGGCTGTG  
 TCTGTGCACCTGTCCACTCTGAGCCGGGTGCAGATCTTTCAGAACTGTGAGGCCAGCCTGCTGGAGGAGCTG  
 30 GTGCTGAAGCTGCAGCCCCAGACCTACTCACCAGGTGAATATGTATGCCGCAAAGGAGACATTGGCCAAGAG  
 ATGTACATCATCCGAGAGGGTCAACTGGCCGTGGTGGCAGATGATGGTATCACACAGTATGCTGTGCTCGGT  
 GCAGGGCTCTACTTTGGGGAGATCAGCATCATCAACATCAAAGGGAACATGTCTGGGAACCGCCGACAGCC  
 AACATCAAGAGCCTAGGTTATTTCAGACCTATTCTGCCTGAGCAAGGAGGACCTGCGGGAGGTGCTGAGCGAG  
 TATCCACAAGCACAGACCATCATGGAGGAGAAAGGACGTGAGATCCTGCTGAAAATGAACAAGTTGGACGTG  
 35 AATGCTGAGGCAGCTGAGATCGCCCTGCAGGAGGCCACAGAGTCCCGGCTACGAGGCCTAGACCAGCAGCTG  
 GATGATCTACAGACCAAGTTTGCTCGCCTCCTGGCTGAGCTGGAGTCCAGCGCACTTAAGATTGCTTACCGC  
 ATTGAACGGCTGGAGTGGCAGACTCGAGAGTGGCCAATGCCCGAGGACCTGGCTGAGGCTGATGACGAGGGT  
 GAGCCTGAGGAGGGAACCTTCCAAAGATGAAGAGGGCAGGGCCAGCCAGGAGGGACCCCCAGGTCCAGAGTGA

**SEQ ID NO:4**

(sense strand primer)

GCAGATCTTTCAGAACTGTGAGGCCA

5

**SEQ ID NO:5**

Oligo 2 (antisense strand primer)

CCTGCCCTCTTCATCTTTGGAAGTTC

10

**SEQ ID NO:6**

Oligo 3 (sense strand primer)

GCCAACATCAAGAGCCTAGGTTATTC

15

**SEQ ID NO:7**

Oligo 4 nested gene specific oligo (sense strand primer)

GGATGATCTACAGACCAAGTTTGCTCG

20

**SEQ ID NO:8**

(sense strand primer)

ATGAGCCAGGACACCAAAGTGAAGAC

25

**SEQ ID NO:9**

Oligo 6 (antisense primer specific to human CNG2B)

GTTGATGATGCTGATCTCCCCAAAG

30

**SEQ ID NO:10**

Oligo 7 (CNG2B-specific antisense strand primer)

GGATGATGAGGTTATACATGACTGGG

**SEQ ID NO:11**

Oligo 8 (nested CNG2B-specific antisense strand primer)

5 AGGCTAGCAACTTCCTGGCCTTGGAT

**SEQ ID NO:12**

Oligo 9 (sense strand primer)

10 GCGAAAGCTTCCACCATGAGCCAGGACACCAAAGTG

**SEQ ID NO:13**

Oligo 10 (antisense strand primer)

15 CATGTCTAGAATGGGGATGGGGTCACTCTGGACCT

**SEQ ID NO:14**

Oligo 1 (sense strand primer)

20 GCAGATCTTCCAGAACTGTAAGGCCA

**SEQ ID NO:15**

Oligo 5 (degenerate sense strand primer)

25 ATGAGCCAGGACGGNAARGTNAARAC